

REMARKS

The present application was filed on July 30, 2003 with claims 1-21. Claims 1, 8 and 15 are the independent claims.

In the outstanding Office Action dated March 7, 2006, the Examiner: (i) rejected claims 1, 3-8, 9-15 and 17-21 under 35 U.S.C. §102(b) as being anticipated by a U.S. Patent No. 6,292,797 to Tuzhilin et al. (hereinafter “Tuzhilin”); and (ii) rejected claims 2, 9 and 16 under 35 U.S.C. §103(a) as being unpatentable over Tuzhilin in view of “Data Mining: Concepts and Techniques: Slides for Textbook, Chapter 6,” January 2001, by H. Jiawei et al. (hereinafter “Jiawei”).

While Applicants believe that claims 1-21, as originally filed, patentably distinguish over Tuzhilin and Jiawei, alone or in combination, because such references fail to disclose a multi-attribute mining template as claimed, Applicants have nonetheless amended independent claims 1, 8 and 15 to further clarify the subject matter of the invention in a sincere effort to move the present application through to issuance.

More particularly, Applicants have amended independent claims 1, 8 and 15 to recite that the multi-attribute mining templates are related by an anti-monotonicity property such that the property holds when mining top-down from  $k$ -itemsets to  $(k + 1)$ -itemsets and when mining items defined by a set of  $k$  attributes to items defined by  $k + 1$  attributes. Support for the amendment may be found throughout the present specification, by way of example, see page 8, lines 9-12.

Neither Tuzhilin nor Jiawei disclose such a feature. Jiawei is cited on page 6 of the present Office Action as disclosing an anti-monotonicity property. However, Jiawei does not disclose that the property holds when mining top-down from  $k$ -itemsets to  $(k + 1)$ -itemsets and when mining items defined by a set of  $k$  attributes to items defined by  $k + 1$  attributes, as in the claimed invention. Nor does Jiawei, or its combination with Tuzhilin, disclose that multi-attribute mining templates are related by an anti-monotonicity property, as the claimed invention also recites.

Furthermore, it is improper to combine Tuzhilin and Jiawei since there is no motivation in either reference to suggest such a combination. Other than slides 66 and 70 of Jiawei that mention an anti-monotone constraint, nothing in either reference properly suggests a combination between Jiawei and Tuzhilin. The present Office Action seems to suggest (on page 6) that simply because

both Tuzhilin and Jiawei generally relate to data mining, then they are combinable. This is clearly not the legal standard for combination.

The Federal Circuit has stated that when patentability turns on the question of obviousness, the obviousness determination “must be based on objective evidence of record” and that “this precedent has been reinforced in myriad decisions, and cannot be dispensed with.” In re Lee, 277 F.3d 1338, 1343 (Fed. Cir. 2002). Moreover, the Federal Circuit has stated that “conclusory statements” by an examiner fail to adequately address the factual question of motivation, which is material to patentability and cannot be resolved “on subjective belief and unknown authority.” Id. at 1343-1344. Applicants submit that the statement given by the Examiner at page 6 of the present Office Action is based on the type of “subjective belief and unknown authority” that the Federal Circuit has indicated provides insufficient support for an obviousness rejection.

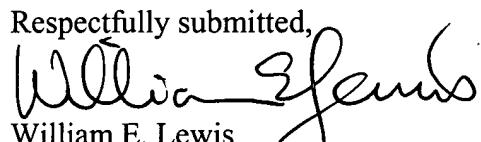
For at least the above reasons, Applicants traverse the rejections of independent claims 1, 8 and 15 and believe that such claims are patentable over the cited references. Withdrawal of the rejection is therefore respectfully requested.

In addition, Applicants assert that the claims which depend from independent claims 1, 8 and 15, namely claims 3-7, 10-14 and 17-21, are patentable over the cited references not only for the above reasons, but also because such dependent claims recite patentable subject matter in their own right.

In view of the above, Applicants believe that claims 1-21 are in condition for allowance, and respectfully request withdrawal of the §102(b) and §103(a) rejections.

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Respectfully submitted,

  
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